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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/689,218	10/11/2000	Thomas E. Giles	082225.P4249	7966

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EXAMINER
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LIN, KENNY S

ART UNIT	PAPER NUMBER
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2154

DATE MAILED: 08/08/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/689,218

Applicant(s)

GILES ET AL.

Examiner

Kenny Lin

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 01 July 2005.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

**DETAILED ACTION**

1. Claims 1-12 are presented for examination. Claims 13-20 are canceled.
2. The affidavit filed on 7/1/2005 under 37 CFR 1.131 is sufficient to overcome the Hipp reference.
3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.
4. Claims 1-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Edmonds et al (hereinafter Edmonds), US 6,412,079, in view of Miller, US 5,829,130.
5. As per claim 1, Edmonds taught the invention substantially as claimed including an apparatus comprising:
  - a. Two server nodes each able to perform server functions with integrated switching, routing, load balancing and fail-over functions (col.2, lines 5-21, 37-44, 47-51, 59-66, col.6, lines 11-13, col.7, lines 26-55); and
  - b. A plurality of ports coupled with each server node (col.6, lines 11-13; fig.3; two ports connection to two switches and one port connection to the Internet).

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6. Edmonds did not specifically teach that the two or more server node cards are coupled to a card rack. Miller taught to include a plurality of servers in a rack cabinet with a plurality of ports coupled with each server node (col.5, lines 49-66, col.6, lines 46-59). It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Edmonds and Miller because Miller's teachings of including a plurality of servers in a rack enables Edmonds' apparatus to define a number of available network servers such as a file and print server, a communications server, a telephony server an Internet server and video server in a rack cabinet (see Miller, col.5, lines 49-66).

7. Malcolm taught to mount a plurality of servers in a rack cabinet with a plurality of ports coupled with each server node (abstract, col.2, lines 45-67, col.3, lines 1-40, 51-55, col.7, lines 14-15, 26-28, col.9, lines 65-66, col.10, lines 1-2). It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Edmonds and Malcolm because Malcolm's teachings of mounting a plurality of servers in a rack enables Edmonds' apparatus to provide space efficiency by using minimal rack cabinet panel spaces for a plurality of servers (see Malcolm, col.2, lines 45-67, col.3, lines 1-40).

8. As per claim 5, Edmonds taught the invention substantially as claimed including a server block comprising:

- a. A plurality of server nodes, each server node including: a server with integrated switching, routing, load balancing and fail-over functions (col.2, lines 5-21, 37-44, 47-51, 59-66, col.6, lines 11-13, col.7, lines 26-55); and a plurality of ports, at

least one port of the plurality of ports configured for connection to an external network (col.6, lines 11-13; fig.3; two ports connection to two switches and one port connection to the Internet); and

- b. A plurality of signal paths connected with the plurality of ports of the server nodes (figs.3, 5-6), at least two of the plurality of ports of each server node connected with another server node of the plurality of server nodes in the server block (figs.3, 5-6; col.2, lines 37-44, 47-51, 59-66, col.6, lines 11-13, col.7, lines 26-55).

9. Edmonds did not specifically teach that the server nodes are comprised in a server block. Miller taught to mount a plurality of servers in a rack cabinet with a plurality of ports coupled with each server node (col.5, lines 49-66, col.6, lines 46-59, col.8, lines 18-24). It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Edmonds and Miller because Miller's teachings of including a plurality of servers in a rack enables Edmonds' apparatus to define a number of available network servers such as a file and print server, a communications server, a telephony server an Internet server and video server in a rack cabinet (see Miller, col.5, lines 49-66).

10. As per claim 9, Edmonds taught the invention substantially as claimed including a computer network comprising:

- i. A plurality of server nodes, each server node including: a server with integrated switching, routing, load balancing and fail-over functions and a

plurality of ports (col.2, lines 5-21, 37-44, 47-51, 59-66, col.6, lines 11-13, col.7, lines 26-55; fig.3; two ports connection to two switches and one port connection to the Internet); and

- ii. A plurality of signal paths connected with the plurality of ports of each server node (figs.3, 5-6), and at least two signal paths connected with each server node of the plurality of server nodes being connected with other server nodes of the plurality of server nodes (figs.3, 5-6; col.2, lines 37-44, 47-51, 59-66, col.6, lines 11-13, col.7, lines 26-55); and

11. Edmonds did not specifically teach that the server nodes are comprised in a server block, the network comprising a plurality of server blocks and a plurality of signals paths connected with the server blocks, at least one signal path connected with each server block of the plurality of server blocks providing an external connection to the network, and at least two signal paths connected with each server block of the plurality of server blocks being connected with the other server blocks of the plurality of server blocks. Miller taught to mount a plurality of servers in a rack cabinet with at least one signal path connected with each server node of the plurality of server nodes providing an external connection to a server block, coupling a plurality of server blocks and a plurality of signals paths connected with the server blocks (col.5, lines 49-66, col.6, lines 46-59, col.8, lines 18-24), at least one signal path connected with each server block of the plurality of server blocks providing an external connection to the network (col.7, lines 6-13), and at least two signal paths connected with each server block of the plurality of server blocks being connected with the other server blocks of the plurality of server blocks (col.6, lines 46-59, col.7,

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lines 14-20). It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Edmonds and Miller because Miller's teachings of including a plurality of servers in a rack cabinet and interconnection sever rack cabinets enables Edmonds' apparatus to define a number of available network servers such as a file and print server, a communications server, a telephony server an Internet server and video server in a rack cabinet and further expend the system by coupling with additional rack cabinets (see Miller, col.5, lines 49-66).

12. As per claim 2, 6 and 10, Edmonds and Miller taught the invention substantially as claimed in claims 1, 5 and 9. Miller further taught wherein each server node of the plurality of server nodes comprises one single printed circuit board (col.5, lines 49-66; circuit card).

13. As per claim 3, Edmonds and Miller taught the invention substantially as claimed in claim 1. Miller further taught that where the plurality of ports comprises four ports (col.8, lines 18-24).

14. As per claims 4, 7 and 11, Edmonds and Miller taught the invention substantially as claimed in claims 2, 6 and 10. Miller further taught wherein the printed circuit board is rack mountable and the plurality of ports of each server node are accessible as connection points on the card rack and the server block is constructed in one card rack by interconnecting the connection points on the card rack (col.5, lines 49-66, col.6, lines 46-59, col.7, lines 6-20, col.8, lines 18-24).

15. As per claims 8 and 12, Edmonds and Miller taught the invention substantially as claimed in claims 7 and 11. Miller further taught wherein the external connections of the plurality of server block are provided through an interface card in the card rack, the interface card being connected to the plurality of server nodes through connection points on the card rack (col.6, lines 46-59, col.7, lines 6-20).

*Conclusion*

16. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Malcolm, US 5,913,034.

Papa et al, US 6,175,490.

Hobbs et al, US 5,684,671.

Hobbs et al, US 5,877,938.

Moura et al, US 6,411,606.

Miller, US 5,801,921.

17. A shortened statutory period for reply to this Office action is set to expire **THREE MONTHS** from the mailing date of this action.




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18. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kenny Lin whose telephone number is (571) 272-3968. The examiner can normally be reached on 8 AM to 5 PM Tue.-Fri. and every other Monday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Follansbee can be reached on (571) 272-3964. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

ksl  
August 2, 2005

  
JOHN FOLLANSBEE  
SUPERVISOR  
TECHNOLOGY